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THE DIRECTV GROUP INC
PATENT DOCKET ADMINISTRATION RE/R11/A109
P O BOX 956
EL SEGUNDO, CA 90245-0956

EXAMINER	
TORRES, JUAN A	

ART UNIT	PAPER NUMBER
2631	

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/068,047	CHEN ET AL.	
	Examiner	Art Unit	
	Juan A. Torres	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 7-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 7-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 3 is objected to because of the following informalities: in lines 2-3 of claim 3 the recitation "a first decoders for and decoding the upper layer signal, and a second decoder for decoding the lower layer signal" is improper because it in not clear what is trying to claim; it is suggested to be changed to "a first decoder for decoding the upper layer signal, and a second decoder for decoding the lower layer signal". Appropriate correction is required.

Claims 41-43 are objected to because of the following informalities: in lines 1-4 of claim 41 the recitation "In a system broadcasting a legacy signal having legacy data to a plurality of legacy receivers, a method of increasing data throughput of the system so as to transmit the legacy data to the legacy receivers while compatibility transmitting the legacy data and non-legacy data adding to or enhancing the legacy data to a plurality of non-legacy receivers, comprising" is improper because it is not clear that the claim is trying to claim a method rather than an apparatus; it is suggested to be changed to "A method for increasing data throughput of In a system broadcasting a legacy signal having legacy data to a plurality of legacy receivers so as to transmit to the legacy receivers while compatibility transmitting the legacy data and non-legacy data adding to or enhancing the legacy data to a plurality of non-legacy receivers, comprising". Claims 42-43 are objected because they depends from claim 41. Appropriate correction is required.

Claims 44-46 are objected to because of the following informalities: in line 3 of claim 44 the recitation "to legacy transmitters" is improper because it in not clear what is trying to claim; it is suggested to be changed to " to legacy receivers". Appropriate correction is required. Claims 45-46 are objected because they depend from claim 44.

Claims 44-46 are objected to because of the following informalities: in lines 1-4 of claim 44 the recitation "In a system broadcasting a legacy signal having legacy data to a plurality of legacy receivers, a method of increasing data throughput of the system so as to transmit the legacy data to the legacy transmitters while compatibility transmitting the legacy data and non-legacy data adding to or enhancing the legacy data to a plurality of non-legacy receivers, comprising the steps of" is improper because it is not clear that the claim is trying to claim a method rather than an apparatus; it is suggested to be changed to "A method for increasing data throughput of In a system broadcasting a legacy signal having legacy data to a plurality of legacy receivers so as to transmit to the legacy receivers while compatibility transmitting the legacy data and non-legacy data adding to or enhancing the legacy data to a plurality of non-legacy receivers, comprising the steps of". Claims 45-46 are objected because they depends from claim 44. Appropriate correction is required.

Response to Arguments

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

One suggestion/motivation for combining Ishio and Anderson would have been (as indicated in the previous Office action) to build a decoder able to demodulate coherence and non-coherence signals with the same decoder, so the reducing the cost of the decoder because the same decoder is compatible with different systems, so the decoder can be produce in more volume (Anderson column 2 lines 46-61). Anderson discloses a system that is able to work with coherent and with non-coherent signals independently.

Another suggestion/motivation for doing so would have been to increase the transmission data rate of the systems (Ishio column 1 lines 65-68). Ishio builds a system where every constellation point of a legacy system is modulated with several modulation points, so while a legacy system will see only one modulation symbol, a new system will be able to discern several modulation symbols in that legacy modulation symbol, for that reason the new system will be able to produce higher data rates and the old systems will be able to still operate with the new transmitted signal but with the old data rate. In figure 5 Ishio modulates each of the 4 old legacy modulation symbol with 4 symbols that are coherent with the legacy modulation symbol, and Ishio discloses that these signals are coherent, but obviously any other type of modulation can be used as well. This is disclosed in figure 6 where every of the 4 legacy symbol is divided in 16 new symbols, each legacy of the 4 initial symbols become 16 possible new symbols, so the symbol rate is increased by 16; the new receiver will also be able to decode the non-legacy

signal, in principle the new receiver will have to be of a better quality receiver than the legacy receiver because it has to discern in 16 possibilities where before was only 1; in this case Ishio doesn't disclose the necessity of coherence between signals. The new receiver will be able to work with legacy and non-legacy system, but the legacy receiver will be able to work only with legacy system.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 39-46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification doesn't disclose "non-legacy signals".

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 44-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitation in claim 44 "receiving a non-coherently layered modulation signal comprising a lower layer having a first data non-coherently layered with an **upper layer signal having the non-legacy** second data, wherein the

upper layer signal comprises the legacy data and the lower layer signal comprises the non-legacy data". It is vague and indefinite, because it is not understood how the upper layer has at the same time the non-legacy and the legacy data.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishio (US 4039961) and further in view of Anderson (US 6297691).

As per claims 1 and 23 Ishio discloses receiving a layered modulation signal and producing a layered in-phase signal and a layered quadrature signal (figure 5 block 16-17 column 4 lines 3-52. Ishio uses a VCO operating as a turner. This component is also disclosed by Anderson in figure 4 block 54 using a digital NCO); digitizing the layered in-phase signal and the layered quadrature signal (figure 5 block 16 column 4 lines 3-52, the detection circuit 16 will detect the signal that is a digital signal and will make a digital decision of the signal so it is digitalizing the received signal. As the title of the Ishio patent indicates the demodulator is for combined digital amplitude and phase keyed modulation signals. This element is also disclosed by Anderson in figure 3 block 14); a processor for decoding the layered in-phase signal and the layered quadrature signal to produce the upper layer signal and the lower layer (figure 5 blocks 18 and 26 column 4 lines 3-52; this element is also disclosed by Anderson in figure 3

block 20). Ishio doesn't specifically disclose that the layered modulation signal is a non-coherence signal. Anderson discloses de demodulation of non-coherently in-phase and quadrature signals modulated signals (figure 3 column 6 lines 11-45). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to build a decoder able to demodulate coherence and non-coherence signals with the same decoder, so the reducing the cost of the decoder because the same decoder is compatible with different systems, so the decoder can be produce in more volume (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 1 and 23.

As per claims 2 and 24 Ishio and Anderson disclose claims 1 and 23. Ishio also discloses that the processor comprises a logic circuit (figure 7 block 36 column 5 line 63 to column 6 line 4).

As per claims 3 and 26 Ishio and Anderson disclose claims 1 and 23. Ishio also discloses receiving and decoding the upper layer signal and the lower layer signal (figure 5 blocks 18 and 26 column 4 lines 1-52).

As per claims 4 and 25 Ishio and Anderson disclose claims 1 and 23. Ishio also discloses the processor performs frequency acquisition on the layered quadrature signal (figure 5 blocks 16 column 4 line 17-41). Anderson also discloses de demodulation of

non-coherently in-phase and quadrature signals modulated signals (figure 3 column 6 lines 11-45).

As per claims 5 and 27 Ishio and Anderson disclose claims 1 and 23. Anderson also discloses that the processor comprises match filtering the in-phase signal and the (figure 5 blocks 56 column 8 lines 17-31). Anderson discloses de demodulation of non-coherently in-phase and quadrature signals modulated signals (figure 3 column 6 lines 11-45).

As per claim 28 Ishio and Anderson disclose claim 23. Ishio also discloses demodulating and decoding an upper layer signal from the layered in-phase signal and the layered quadrature signal to produce an upper layer signal (figure 5 block 27 and 28 column 4 line 52). Anderson discloses de demodulation of non-coherently in-phase and quadrature signals modulated signals (figure 3 column 6 lines 11-45).

As per claims 7 and 29 Ishio and Anderson disclose claims 1 and 28. Ishio also discloses that the processor produces an ideal upper layer signal including an ideal in-phase upper layer signal and an ideal quadrature upper layer signal from the decoded upper layer signal and subtracts the ideal in-phase upper layer signal and the ideal quadrature upper layer signal from the layered in-phase signal and the layered quadrature signal, respectively, to produce a lower layer in-phase signal and a lower layer quadrature signal of a lower layer signal (figure 5 block 25 column 10 lines 42-52). Anderson discloses de demodulation of non-coherently in-phase and quadrature signals modulated signals (figure 3 column 6 lines 11-45).

As per claims 8 and 30 Ishio and Anderson disclose claims 7 and 29. Ishio also discloses demodulating and decoding the lower layer in-phase signal and the lower layer quadrature signal to produce the lower layer signals (figure 5 block 19 and 20 column 4 lines 14-26).

As per claims 9 and 31 Ishio and Anderson disclose claims 7 and 29. Anderson also discloses match filtering the in-phase signal and the quadrature signal (figure 5 block 56 column 8 lines 17-31).

As per claims 10 and 32 Ishio and Anderson disclose claims 7 and 29. Ishio also discloses that layered in-phase signal and the layered quadrature signal are delayed to synchronize the subtraction (figure 5 delay line 23 column 4 line 25).

As per claims 11 and 33 Ishio and Anderson disclose claims 10 and 32. Ishio also discloses that delaying the layered in-phase signal and the layered quadrature signal are delayed by correlating to the ideal in-phase upper layer signal and the ideal quadrature upper layer signal (figure 5 delay line 23 column 4 line 25).

As per claims 12 and 34 Ishio and Anderson disclose claims 7 and 29. Ishio also discloses signal processing the ideal in-phase upper layer signal and the ideal quadrature upper layer signal (figure 5 block 21 column 4 line 18).

As per claims 13 and 35 Ishio and Anderson disclose claims 12 and 34. Anderson also discloses finite impulse response matched filtering the ideal in-phase signal and the ideal quadrature (figure 5 block 56 column 8 lines 17-31).

As per claims 14 and 36 Ishio and Anderson disclose claims 12 and 34. Ishio also discloses applying a signal map to the ideal in-phase upper layer signal and the

ideal quadrature upper layer signal, the signal map accounting for transmission distortions of the layered signal (figure 5 block 21 and figures 2, 8 and 9 column 4 line 18).

As per claims 15 and 37 Ishio and Anderson disclose claims 12 and 34. Ishio also discloses amplitude and phase matching the ideal in-phase upper layer signal and the ideal quadrature upper layer signal with the layered in-phase signal and the layered quadrature signal, respectively (figure 5 block 21 column 4 line 18). Anderson discloses de demodulation of non-coherently in-phase and quadrature signals modulated signals (figure 3 column 6 lines 11-45).

As per claim 16 Ishio discloses a processor for decoding a layered modulation signal comprising a lower layer signal layered with an upper layer signal into the upper layer signal and the lower layer signal, comprising a first demodulator and first decoder for demodulating and decoding the upper layer signal from the layered modulation signal and providing the demodulated and decoded upper layer signal at a first output (figure 5 block 16 column 4 lines 5-16); an encoder for generating an ideal upper layer signal from the decoded upper layer signal (figure 5 block 18 column 4 line 12); a signal processor for modifying the ideal upper layer signal to characterize transmission and processing effects (figure 5 block 21 column 4 line 18); a subtractor for subtracting the modified ideal upper layer signal from the layered modulation signal to produce the lower layer signal (figure 5 block 25 column 10 lines 42-52); and a second demodulator and second decoder for demodulating and decoding the lower layer signal and providing the decoded lower layer signal at a second output (figure 5 block 26 column

10 lines 47-52). Ishio doesn't disclose that the signal is a non-coherence signal. Anderson discloses de demodulation of non-coherent in-phase and quadrature signals modulated signals (figure 3 column 6 lines 11-45).

As per claim 17 Ishio and Anderson disclose claim 16. Ishio also discloses a delay function correlated to an output of the signal processor to appropriately delay the layered modulation signal to synchronize amplitude and phase matching of the modified ideal upper layer signal and the layered signal (figure 5 delay line 23 column 4 line 25).

As per claim 18 Ishio and Anderson disclose claim 16. Ishio also discloses a delay function correlated to an output of the signal processor to appropriately delay the layered modulation signal to synchronize subtraction of the modified ideal upper layer signal and the layered signal (figure 5 delay line 23 column 4 line 25

As per claim 19 Ishio and Anderson disclose claim 16. Anderson also discloses that the signal processor performs finite impulse response matched filtering on the ideal layer signal (figure 5 block 56 column 8 lines 17-31).

As per claim 20 Ishio and Anderson disclose claim 16. Anderson also discloses that the signal processor performs finite impulse response matched filtering on the signal (figure 5 block 56 column 8 lines 17-31).

As per claim 21 Ishio and Anderson disclose claim 16. Ishio also discloses that the signal processor applies a signal map to the ideal upper layer signal (figure 5 block 18 column 4 line 12).

As per claim 22 Ishio and Anderson disclose claim 16. Ishio also discloses that the signal processor amplitude and phase matches the ideal upper layer signal with the layered signal (figure 5 block 18 column 4 line 12).

As per claims 38, 39 and 40 Ishio and Anderson disclose claims 1, 16 and 23. Ishio also inherently discloses that the upper layer signal is a legacy signal and the lower layer signal is a non-legacy signal (figure 5 block 18 column 4 line 12). (Ishio column 1 lines 65-68. Ishio builds a system where every constellation point of a legacy system is modulated with several modulation points, so while a legacy system will see only one modulation symbol, a new system will be able to discern several modulation symbols in that legacy modulation symbol, for that reason the new system will be able to produce higher data rates and the old systems will be able to still operate with the new transmitted signal but with the old data rate. In figure 5 Ishio modulates each of the 4 old legacy modulation symbol with 4 symbols that are coherent with the legacy modulation symbol, and Ishio discloses that these signals are coherent, but obviously any other type of modulation can be used as well. This is disclosed in figure 6 where every of the 4 legacy symbol is divided in 16 new symbols, each legacy of the 4 initial symbols become 16 possible new symbols, so the symbol rate is increased by 16; the new receiver will also be able to decode the non-legacy signal, in principle the new receiver will have to be of a better quality receiver than the legacy receiver because it has to discern in 16 possibilities where before was only 1; in this case Ishio doesn't disclose the necessity of coherence between signals. The new receiver will be able to

work with legacy and non-legacy system, but the legacy receiver will be able to work only with legacy system).

As per claim 41 Ishio discloses transmitting layered modulation signal to legacy receivers and non-legacy receivers (figures 1 and 2 and figures 3 and 4 column 3 lines 8-67); where the layered modulation signal comprises a lower layer signal and a upper layer signal (figures 3 and 4 column 3 lines 28-67); where the upper layer signal comprises legacy data and the lower layer signal comprises non-legacy data (figures 1 and 2 legacy data and figures 3 and 4 non-legacy data column 3 lines 8-67). Ishio doesn't disclose that the two signals are non-coherent signals. Anderson discloses de systems transmitting non-coherent 8PSK modulated signals (figure 2 column 5 line 26 to column 6 line 10). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the transmitter disclosed by Ishio the non-coherence signals disclosed by Anderson. The suggestion/motivation for doing so would have been to build a transmitter able to communicate with coherent and non-coherent systems (Anderson column 5 line 64 to column 6 line 10). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 41.

As per claim 42, Ishio and Anderson disclose claim 41. Ishio also discloses that the lower layer signal and the upper layer signal are transmitted by different transmitters (figures 1 and 2 and figures 3 and 4 column 3 lines 8-67).

As per claim 43, Ishio and Anderson disclose claim 41. Ishio also discloses that the lower layer signal is transmitted by a legacy transmitter and the upper layer signal are transmitted by a non-legacy transmitters (figures 1 and 2 and figures 3 and 4 column 3 lines 8-67; and column 1 lines 65-68).

As per claim 44 Ishio discloses receiving a layered modulation signal comprising a lower layer having a first data layered with an upper layer signal having legacy data and the lower layer having non-legacy data (figure 6 block 14 column 4 line 55 to column 5 line 10); demodulating the upper layer signal from the layered modulation signal and provide the demodulated upper layer signal having the legacy data to a first output (figure 6 blocks 19-20 column 4 line 55 to column 5 line 10); re-modulating the demodulated upper layer (figure 6 block 21 column 4 line 55 to column 5 line 10); subtracting the re-modulated ideal upper layer signal from the layered signal to produce the lower layer signal (figure 6 block 25 column 4 line 55 to column 5 line 10); and demodulating the lower layer signal and providing the demodulated lower layer signal having non-legacy data to a second input (figure 6 blocks 27-28 column 4 line 55 to column 5 line 10). Ishio doesn't disclose that the two signals are non-coherent signals. Anderson discloses de systems transmitting non-coherent 8PSK modulated signals (figure 2 column 5 line 26 to column 6 line 10). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the transmitter disclosed by Ishio the non-coherence signals disclosed by Anderson. The suggestion/motivation for doing so would have been to build a transmitter able to

communicate with coherent and non-coherent systems (Anderson column 5 line 64 to column 6 line 10). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 44.

As per claim 45, Ishio and Anderson disclose claim 44. Ishio also discloses that the lower layer signal and the upper layer signal are transmitted by different transmitters (figures 1 and 2 and figures 3 and 4 column 3 lines 8-67).

As per claim 46, Ishio and Anderson disclose claim 44. Ishio also discloses that the lower layer signal is transmitted by a legacy transmitter and the upper layer signal are transmitted by a non-legacy transmitters (figures 1 and 2 and figures 3 and 4 column 3 lines 8-67; and column 1 lines 65-68).

Double Patenting

Claims 1, 2, 5, 6, 7, 10, 12, 13, 14, 15, 23, 24, 27, 28, 29, 32, 34, 35, 36 and 37 of this application conflict with claims 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 19, 22, 23, 26, 27, 28, 29 and 30 respectively of Application No. 10/068,039. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 5, 6, 7, 10, 12, 13, 14, 15, 23, 24, 27, 28, 29, 32, 34, 35, 36 and 37 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 19, 22, 23, 24, 25, 26, 27, 28, 29 and 30 respectively of copending Application No. 10/068,039. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims in the present application are broader in scope.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is (571) 272-3119. The examiner can normally be reached on Monday-Friday 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Juan Alberto Torres
11-1-2005

KEVIN BURD
PRIMARY EXAMINER